UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,764	08/06/2003	Yuji Yoshidomi	029239-0126	6837

22428 7590 11/01/2005

FOLEY AND LARDNER LLP
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER	
MORILLO, JANELL COMBS	
ART UNIT	**PAPER NUMBER**
1742	

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/634,764	YOSHIDOMI, YUJI	
	Examiner	Art Unit	
	Janelle Combs-Morillo	1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 August 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Doko (US 6,471,794).

Doko teaches a sacrificial aluminum alloy for brazing structures comprising (in weight%): 1.6% Ni, 0.4% Si, 0.05% Ti, 1% Zn, balance aluminum (Table 1 Ex. B), which falls within the Ni, Si, Zn, and Ti ranges of instant claim 1. Therefore, it is held that Doko anticipates the presently claimed invention.

3. Claim 1 is rejected under 35 U.S.C. 102(a) as being anticipated by JP 2003147466A (JP'466) or JP2002-012934A (JP'934).

JP'466 teaches an aluminum alloy for heat exchanger excellent in sacrificial anode effect (abstract), said alloy comprising (in weight%): 0.5% Si, 1.2% Ni, 1.5% Zn, balance aluminum

(Table 1 Ex. 5), which falls within the Ni, Si, Zn, ranges of instant claim 1. Therefore, it is held that JP'466 anticipates the presently claimed invention.

JP'934 teaches an aluminum alloy for heat exchanger excellent in sacrificial anode effect (abstract), said alloy comprising (in weight%): 0.33% Si, 0.5% Ni, 1.5% Zn, balance aluminum (Table 3 Ex. 18), which falls within the Ni, Si, Zn, ranges of instant claim 1. Therefore, it is held that JP'934 anticipates the presently claimed invention.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 4, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 11-302760A (JP'760).

JP'760 teaches an aluminum alloy for heat exchangers having an excellent sacrificial anode effect, said alloy comprising (in weight%): 3.1-15% Zn, 0.2-3.0% Ni (abstract), and ≤ 0.5% Si (see[0014]), which substantially overlaps the presently claimed ranges of Zn, Ni, and Si (instant cl. 1).

Concerning claim 4, JP'760 teaches said sacrificial alloy can be combined with a core material comprising (in weight%): 0.05-2.0% Mn, 0.003-1.2% Cu, 0.05-1.2% Si, which overlaps the presently claimed core composition.

Concerning claim 6, JP'760 teaches that said core material is clad with the sacrificial anode on one side and an Al-Si alloy on the other [0008].

Overlapping ranges have been held to be a prima facie case of obviousness, see MPEP § 2144.05. It would have been obvious to one of ordinary skill in the art to select any portion of the range, including the claimed range, from the broader range disclosed in the prior art, because the prior art finds that said composition in the entire disclosed range has a suitable utility. Because of the overlap in alloying ranges, it is held that JP'760 has created a prima facie case of obviousness of the presently claimed invention.

6. Claims 2, 3, 5, 7, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'760 as applied to claims 1 and 4 above, and further in view of Doko (US 6,471,794).

JP'760 does not teach the addition of Mg, In or Sn, or Ti to said alloy. However, Doko teaches ≤1% Mg can be added to Al sacrificial alloys in order to increase strength (column 4 lines 36-42). Doko teaches that ≤0.3% Sn and ≤0.3% In are added to increase the sacrificial corrosion resistance effect (column 4 lines 5-7); and Ti can be added ≤ 0.3% to increase the mechanical strength (column 3 line 63). It would have been obvious to one of ordinary skill in the art to add Mg, In or Sn, and/or Ti to the alloy taught by JP'760 because Doko teaches said elements increase the mechanical strength or the sacrificial anode effect.

7. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doko.

Doko teaches that ≤0.3% Sn and ≤0.3% In are added to the above mentioned brazing alloy increase the sacrificial corrosion resistance effect (column 4 lines 5-7). Doko teaches ≤1% Mg can be added to Al sacrificial alloys in order to increase strength (column 4 lines 36-42). Therefore, because Doko teaches overlapping alloying ranges, it is held that Doko has created a prima facie case of obviousness of the presently claimed invention.

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP'~~934~~ 466 or JP'934.

JP'466 teaches said sacrificial alloy can contain 0.005-0.1% In and 0.01-0.1% Sn [0009], which overlaps the presently claimed ranges.

JP'934 teaches said sacrificial alloy can contain 0.005-0.1% In and 0.01-0.1% Sn (abstract), which overlaps the presently claimed ranges. Therefore, it is held that JP'466 or JP'934 has created a prima facie case of obviousness of the presently claimed invention.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle Combs-Morillo whose telephone number is (571) 272-1240. The examiner can normally be reached on 8:30 am- 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JCM
October 18, 2005

GEORGE WYSZOMIERSKI
PRIMARY EXAMINER
GROUP 1700